SWALLOW.

A NEW ALMANACK

for the Year of our

LORD GOD.

1682.

Being the second after Bissextile or Leap-year, and from the Worlds Creation, 5685.

Calculated properly for the famous Universicy and Town of *Cambridge*, where the Pole Artick is elevated 52 deg. 17 min. above the Horizon.

And may serve indifferently for any other place of this Kingdom.

Omnia sake merit tempus.

CAMBRIDGE,
Printed by *John Hayes*, Printer to the Universfity, 1682.

BIBLIOTHECA BODLEIANA

The vulgar Notes and Moveable Feasts for this Year 1682. in both Accounts, *viz.*

Julian or *English.*			*Gregorian* or Foreign.	
	11	The Golden Number		11
	11	The Cycle of the Sun		11
	1	The Epact		21
	A	The Dominical Letter		D
Feb.	26	Shrove-sunday	Febr.	8
April	16	Easter-day	March	29
May	25	Ascension-day	May	7
June	4	Whitsunday	May	17
June	11	Trinity-sunday	May	24
Decemb.	3	Advent-sunday	Novem.	29

The Anatomy of Mans body.

♈	*Aries* Head and Face	♎	*Libra* Reins and Loyns
♉	*Taurus* Neck & Throat	♏	*Scorpio* Secret members
♊	*Gemini* Arms and Shoul.	♐	*Sagitarius* the Thighs
♋	*Cancer* Breast & Stom.	♑	*Capricornus* the Knees
♌	*Leo* Heart and Back	♒	*Aquarius* the Legs
♍	*Virgo* Bowels and Belly	♓	*Pisces* the Feet.

The

The Terms with their Returns.

Hillary Term begins January 23, and ends February 13, and hath 4 returns, *viz.*

- Octab. Hilar. Jan. 20
- Quind. Hilar. Jan. 27
- Craſt. Purif. Febr. 3
- Octab. Purif. Febr. 9

Eaſter Term begins May 3, ends May 29, and hath 5 returns, *viz.*

- Quind. Paſch. May 2
- Tres Paſch. May 8
- Menſ. Paſch. May 15
- Quinq. Paſch. May 22
- Craſt. Aſcen. May 26

Trinity Term begins June 16 and ends July 5, and hath 4 returns, *viz.*

- Craſt. Trin. June 12
- Octab. Trin. June 19
- Quind. Trin. June 26
- Tres Trin. July 3

Michaelmas Term begins October 23, ends November 28 and hath 6 returns, *viz.*

- Tres Mich. Octob. 20
- Menſ. Mich. Octob. 27
- Craſt. anim. Nov. 3
- Craſt. Mart. Nov. 13
- Octab. Mart. Nov. 18
- Quind. Mart. Nov. 25

Note that the Exchequer openeth 8 days before any Term begins, except the Term of Trinity, in which it openeth but 4 days before.

Note alſo that the bright Planet *Venus*, is our glorious Morning Star from the beginning of the year to the 10 day of *April*, and then making her Conjunction with the Sun She becomes Occidental, and will be our bright Evening Star to the end of the year.

January hath xxxi days.

First quarter 6 day, 22 min. past 8 at night
Full moon 13 day, 13 min. past noon
Last quarter 20 day, 21 min. past 11 beforenoon
New moon 28 day, 33 min. past 3 afternoon.

1	A	Circumcision	Aquar	20	21	50	
2	b	Octab. Steph.	Pisc.	2	22	52	Rainy weather
3	c	Octab. John		14	23	53	at the begin-
4	d	Octab. Innoc.		27	24	54	ning and not
5	e	Simeon	Aries	10	25	55	very cold.
6	f	Epiphany		24	26	56	
7	g	Julian	Taur.	5	27	58	
8	A	1 aft. Epiph.		19	28	59	About this
9	b	Marcellus	Gem.	4	0 ♒	0	time expect
10	c	Paul Hermit		18	1	1	snow.
11	d	Higinius	Canc.	3	2	2	
12	e	Satyrius		18	3	3	Cold frosty,
13	f	Hillary Bish.	Leo	3	4	4	cloudy, and
14	g	Felix		19	5	5	snowy wea-
15	A	2 aft. Epiph.	Virgo	3	6	6	ther may now
16	b	Marcell.		18	7	7	also be ex-
17	c	Anthony	Libra	2	8	8	pected.
18	d	Prisca		15	9	9	
19	e	Pontion		28	10	10	
20	f	Octab. Hilar.	Scorp	11	11	11	
21	g	Agnes Virg.		24	12	12	
22	A	3 aft. Epiph.	Sagit.	5	13	13	High winds
23	b	Term begins		18	14	14	with cold rain
24	c	Timothy		29	15	15	or snow to-
25	d	Conv. S. Paul	Capr.	11	16	16	ward the end.
26	e	Polycarpus		23	17	16	
27	f	Quind. Hilar.	Aquar.	5	18	17	
28	g	Carolus mag.		17	19	18	
29	A	4 after Epiph.		28	20	19	
30	b	K. Cha. I. Mar	Pisc.	11	21	19	
31	c	Virgilius		24	22	20	

February hath xxviii days.

First quarter the 5 day, 59 min. past 8 beforenoon
Full moon the 11 day, 26 min. past 11 at night
Last quarter 19 day, 38 min. past 5 in the morning
New moon 27 day, 49 min. past 8 in the morning.

M.D.	W.D.	Festival days with Terms	Moons place.		☉ plac. d.	m.	Inclination of the air.
1	d	Bridget fast	Aries	6	23	20	
2	e	Purification		19	24	20	Indifferent
3	f	Crast. Purif.	Taur.	2	25	21	Warm for the
4	g	Gilbertus		16	26	21	season and
5	A	5 after Epiph.		29	27	22	like to con-
6	b	Dorothy	Gem.	13	28	22	tinue.
7	c	Zachary		27	29	23	
8	d	Sun in Pisces	Canc.	12	0 ♓	23	
9	e	Octab. Purif.		27	1	24	
10	f	Scholastica	Leo	12	2	24	
11	g	Euphrodit.		27	3	25	
12	A	Septuagesima	Virgo	12	4	25	Wet weather
13	b	Term ends		26	5	25	& temperate.
14	c	Valentine	Libra	10	6	26	
15	d	Faustine		24	7	26	
16	e	Polychron	Scorp.	7	8	26	
17	f	Constance		28	9	26	
18	g	Concord	Sagit.	2	10	26	
19	A	Sexagesima		14	11	26	
20	b	Eucharist		26	12	26	Now about
21	c	Timbret	Capr.	8	13	25	expect some
22	d	Cathedr. Petri		20	14	26	snow with
23	e	Serenus fast	Aquar.	2	15	26	frost.
24	f	S. Matthias		13	16	26	
25	g	Nictor		26	17	26	More mild
26	A	Shrove Sund.	Pisces	8	18	26	toward the
27	b	Fortuna		20	19	26	end with
28	c	Shrove tuesd.	Aries	3	20	26	wind.

First quarter 6 day, 12 min. past 5 in the morning
Full moon 13 day, 46 min. past 9 beforenoon
Last quart. 21 day, 34 min. past midnight
New moon 28 day, 57 min. past 10 at night.

1	d	Ash wednesd.	Aries	16	21	25	
2	e	Chad		29	22	25	High winds
3	f	Lucius	Taur.	13	23	25	with storms
4	g	Adrian		26	24	24	of hail.
5	a	1 Sun. in Lent	Gem.	10	25	24	
6	b	Frederick		24	26	24	
7	c	Perpetua	Canc.	8	27	23	
8	d	Ember week		22	28	23	
9	e	Prudent.	Leo	6	29	22	
10	f	Sun in Aries		21	0 ♈	21	
11	g	Cuthbert	Virgo	5	1	21	
12	a	2 Sun. in Lent		20	2	20	Windy turbu-
13	b	Wigand	Libra	4	3	20	lent weather
14	c	Eutychus		18	4	19	and something
15	d	Longinus	Scorp.	2	5	18	cold.
16	e	Cyriacus		15	6	17	
17	f	Gertrude		28	7	16	
18	g	Edward k.	Sagit.	10	8	16	
19	a	3 sun. in Lent		22	9	15	Indifferent
20	b	Rupert	Capr.	4	10	14	good weather
21	c	Benedict		16	11	13	with some
22	d	Paulinus		28	12	12	snow.
23	e	Theodore	Aquar.	10	13	11	
24	f	Mutinus fa.		22	14	10	Clear and
25	g	Lady day	Pisces	0	15	9	windy now,
26	a	Midlent Sun.		16	16	7	but wet about
27	b	Archibald		29	17	6	the end of the
28	c	Gideon	Aries	12	18	5	month.
29	d	Eustachius		25	19	4	
30	e	Guido	Taur.	9	20	2	
31	f	Balbina		23	21	1	

April hath xxx days.

First quarter 4 day, 52 min. paſt 10 at night
Full moon 11 day, 35 min. paſt. 9 at night
Laſt quarter 19 day, 46 min. paſt 6 at night
New moon 27 day, 10 min. paſt 10 before noon.

1	g	Conv. M. M.	Gem.	7	22	0	
2	A	5 Sun. in Lent		21	22	59	Good temperate weather at the beginning.
3	b	Chriſtian	Canc.	5	23	58	
4	c	Ambroſe		19	24	56	
5	d	Vincent	Leo	3	25	55	
6	e	Sixtus		17	26	53	
7	f	Dionyſ.	Virgo	1	27	52	Now expect windy ſhowry weather with thunder.
8	g	Albinus		15	28	50	
9	A	Palm Sunday		29	29	49	
10	b	Sun in Taurus	Libra	13	0	48	
11	c	Leo Pope		27	1	46	
12	d	Julius	Scorp.	10	2	45	Wet weather but ſeaſonable.
13	e	Juſtinus		23	3	43	
14	f	Good friday	Sagit.	6	4	41	
15	g	Olympia faſt		18	5	39	
16	A	Eaſter day	Capr.	0	6	37	
17	b	Aniceius		12	7	35	
18	c	Oſwin		24	8	34	
19	d	Timothy	Aquar.	6	9	32	
20	e	Sulpitius		18	10	30	Warm weather with ſtorms of hail and rain.
21	f	Anſelm		29	11	28	
22	g	Emmanuel	Piſc.	12	12	26	
23	A	Low Sunday		24	13	24	
24	b	Albertus	Aries	7	14	21	
25	c	S. Mar. Evan.		20	15	19	Windy and turbulent toward the end.
26	d	Cletus	Taur.	4	16	17	
27	e	Anaſtaſ.		18	17	15	
28	f	Vitalis	Gem.	2	18	13	
29	g	Sibylla		16	19	11	
30	A	2 aſt. Eaſter	Canc.	1	20	8	

May hath xxxi days.

First quarter 4 day, 30 past 3 in the morning
Full moon 11 day, 18 min. past 10 before noon
Last quarter 19 day, 50 min. past 11 before noon
New moon 26 day, 3 min. past 7 at night.

1	b	Phil. & Jac.	Cane.	15	21	6	
2	c	Quind. Pasc.		19	22	4	Windy weather at the beginning and temperate.
3	d	Term begins	Leo	14	23	1	
4	e	Florian		28	23	59	
5	f	Gothard	Virg.	11	24	57	
6	g	Joh. Port. Lat		25	25	54	
7	A	3 Sun. af. East.	Libra	9	26	52	Dry and cold now.
8	b	Tres Pasch.		22	27	50	
9	c	Nazianzen	Scorp.	5	28	47	
10	d	Pancrat.		18	29	45	
11	e	Sun in Gem.	Sagit.	1	0	42	
12	f	Gordian		14	1	40	
13	g	Servatius		26	2	37	Cloudy and thick air like to rain.
14	A	4 after Easter	Capr.	8	3	34	
15	b	Mens. Pasch.		20	4	32	
16	c	Ubaldus	Aquar.	2	5	29	
17	d	Jodocus		14	6	27	
18	e	Oswald Bis.		26	7	24	
19	f	Dunstan	Pisces	8	8	21	
20	g	Bernard		20	9	19	
21	A	Rogation Sun.	Aries	2	10	16	Windy and turbulent about this time.
22	b	Quinq; Pasch.		15	11	13	
23	c	Desider.		28	12	10	
24	d	Esther	Taur.	12	13	7	
25	e	Holy Thursd.		25	14	4	
26	f	Crast. Ascen.	Gem.	11	15	2	Hot weather toward the end with thunder.
27	g	Beda Priest		25	15	59	
28	A	Sun. aft. Asc.	Canc.	10	16	57	
29	b	K. Char. 2 N.	Ter. ends		17	54	
30	c	Wigand	Leo	10	18	51	
1	d	Petronella		24	18	48	

June hath xxx days.

First quarter 2 day, 50 min. past 8 in the morning
Full moon 9 day, 58 min. past 11 at night
Last quarter 18 day, 51 min. past 2 in the morning
New moon 25 day, 53 min. past 2 in the morning.

1	f	Nicomed	Virg.	8	20	45	
2	g	Marcelline		22	21	43	Very hot at
3	a	Erasmus fast	Libra	6	22	39	the beginning.
4	b	Whitsunday		19	23	37	
5	c	Boniface	Scorp.	2	24	34	
6	d	Claudius		15	25	31	
7	e	Ember week		27	26	28	
8	f	Medard	Sagit.	10	27	25	Showery now
9	g	Pelagia		22	28	22	with storms of
10	a	Margaret	Capric.	4	29	19	hail, and
11	b	Trinity Sund.	S. Barnab.		0	16	lightning on
12	c	Fraft. Trin.		28	1	13	evenings.
13	d	Cyrillus	Aquar.	10	2	10	
14	e	Valerius		28	3	7	
15	f	*Corpus Christi*	Pisces	4	4	4	
16	g	Term begins		16	5	1	
17	a	Botolph		28	6	59	Seasonable
18	b	1 sun. af. Trin.	Aries	10	7	56	fair and dry
19	c	Octab. Trin.		23	8	53	weather may
20	d	Sylverius	Taur.	7	9	50	now be ex-
21	e	Walburg		20	10	47	pected, with
22	f	Achatius	Gem.	4	10	44	wholesom
23	g	Vigil fast		19	11	41	gales of wind.
24	a	S. John Bapt.	Canc.	4	12	38	
25	b	2 sun. af. Trin.		19	13	35	Windy and
26	c	Quind. Trin.	Leo	4	14	32	showry about
27	d	Crescens		19	15	29	this time and
28	e	Leo fast	Virgo	4	16	26	hot.
29	f	S. Peter Apo.		18	17	23	
30	g	Com. S. Paul	Libra	2	18	20	

July hath xxxi days.

First quarter 1 day, 5 min. past 5 after noon
Full moon 9 day, 33 min. past 2 afternoon
Last quarter 17 day, 58 min. past 3 afternoon
New moon 24 day, 32 min. past 9 before noon
First quarter 31 day, 14 min. past 2 in the morning.

1	g	Romwald B.	Libra	16	19	18	
2	A	3 Sun. af. Trin.		29	20	15	Indifferendy
3	b	Tres Trin.	Scorp.	12	21	12	hot for the
4	c	Ulricus		24	22	9	ſeaſon with
5	d	Term ends	Sagit.	7	23	6	ſtorms of hail
6	e	Anſelmus		19	24	3	and thunder.
7	f	Hector	Capr.	1	25	0	
8	g	Demetrius		13	25	57	
9	A	4 Sun. af. Trin.		25	26	55	Temperate
10	b	Sev. Brethren	Aquar.	7	27	52	weather but
11	c	Pius		19	28	49	heat in-
12	d	Henricus	Piſces	1	29	46	creaſeth now
13	e	Sun in Leo		13	0	43	with thunder.
14	f	Bonavent.		25	1	41	
15	g	Swithin B.	Aries	7	2	38	High winds
16	A	5 Sun. af. Trin.		19	3	35	and wet.
17	b	Alexius	Taur.	2	4	33	
18	c	Roſina		15	5	30	
19	d	Dog days beg.		29	6	27	
20	e	Elias	Gem.	13	7	24	
21	f	Daniel		27	8	21	Hot ſoultry
22	g	Mary Mag.	Canc.	12	9	18	weather to-
23	A	6 Sun. af. Trin.		27	10	15	ward the end
24	b	Chriſtina fa.	Leo	13	11	12	and wet with
25	c	S. James Apo.		28	12	9	hail and
26	d	Anna	Virg.	13	13	6	thunder.
27	e	Martha		27	14	3	
28	f	Celſus	Libra	12	15	1	
29	g	Beatrix		25	15	59	
30	A	7 Sun. af. Trin.	Scorp.	8	16	57	
31	b	Ignatius		21	17	55	

Auguſt hath xxxi days.

Full moon 8 day, 7 min. paſt 5 in the morning
Laſt quarter 16 day, 31 min. paſt 2 in the morning
New moon 22 day, 45 min. paſt 4 afternoon
Firſt quarter 29 day, 32 min. paſt 6 afternoon.

f	Lammas day	Sagit.	4	18	54	
g	Stephanus		16	19	52	Hot ſhowery
a	Invent. Steph.		28	20	49	weather at the
b	Dominick	Capr.	10	21	47	beginning.
c	Feſt nivis		22	22	45	
d	8 Sun. af Trin.	Aquar.	4	23	42	
e	Donatus		16	24	40	
f	Cyriacus		28	25	38	
g	Julian	Piſces	10	26	36	Heat abated
a	Lawrence		22	27	33	now.
b	Gilbert B. C.	Aries	4	28	31	
c	Clare Virg.		16	29	29	
d	9 aft. Trin.		29	omit	27	
e	Euſebius	Taur.	12	1	25	
f	Aſſumpt. Mary		25	2	23	
g	Roch	Gem.	8	3	21	Good tempe-
a	Mammes		22	4	19	rate weather
b	Helena	Canc.	6	5	17	with ſtorms
c	Hebald		21	6	15	of hail and
d	10 after Trin.	Leo	6	7	13	thunder.
e	Athanaſius		21	8	11	
f	Timothy	Virg.	6	9	9	
g	Jacheus faſt		21	10	8	
a	S. Bartholom.	Libra	6	11	6	
b	Lewis King		20	12	4	Very haſty
c	Ireneus	Scorp.	4	13	2	ſhowers ex-
d	Dog days end		17	14	1	pect toward
e	Auguſtine	Sagit.	0	14	59	the end.
f	Decol. J. Bapt.		13	15	58	
g	Felix		25	16	56	
a	Adrian	Capr.	6	17	54	

September hath xxx days.

Full moon 6 day, 35 min. paſt 9 at night
Laſt quarter 14 day, 1 min. paſt 1 beforenoon
New moon 21 day, at 2 in the morning
Firſt quarter 28 day, 3 min. paſt noon.

1	f	Giles Abbot	Capri.	19	18 53	
2	g	Seraphia	Aquar.	1	19 51	Very hot
3	A	12 after Trin.		13	20 50	weather now
4	b	Theodoſe		24	21 49	with thunder
5	c	Zachary	Piſces	6	22 47	
6	d	Magnus		19	23 46	
7	e	Regina	Aries	1	24 45	
8	f	Nat. of Mary		13	25 43	More mode-
9	g	Gorgon		26	26 42	rate now
10	A	13 after Trin.	Taur.	7	27 41	with ſhowers
11	b	Theobald		21	28 40	and ſtorms of
12	c	Tobias	Gem.	5	29 39	hail.
13	d	Sun in Sagit.		18	0 ♎ 38	
14	e	*Exalt. Crucis*	Canc.	2	1 36	
15	f	Nicomedes		16	2 35	High winds
16	g	Euphemia	Leo	0	3 34	and boiſterous
17	A	14 after Trin.		15	4 33	but not very
18	b	Ferriolus	Virgo	0	5 33	hot.
19	c	Januarius		13	6 32	
20	d	Ember week		29	7 31	
21	e	S. Matthew	Libra	14	8 30	
22	f	Maurice		28	9 29	Rainy and
23	g	Eſtias	Scorp.	12	10 29	cold weather
24	A	15 after Trin.		25	11 28	toward the
25	b	Cleophas	Sagit.	8	12 27	end may be
26	c	Cyprian		21	13 26	expected.
27	d	Judith	Capr.	3	14 26	
28	e	Wenceſl.		15	15 25	
29	f	S. Mich. Arch.		27	16 25	
30	g	Jerome P.	Aquar.	9	17 24	

October hath xxxi days.

Full moon 6 day, 4 min. past 1 afternoon
Last quarter 13 day, 59 min. past 5 afternoon
New moon 20 day, 19 min. past 1 afternoon
First quarter 28 day, 40 min. past 7 in the morning.

A	16 after Trin.	Aquar.	21	18	24	
b	Leodegar	Piſces	3	19	24	Showery
c	Candide		15	20	23	miſling wea-
d	Francis		27	21	23	ther and not
e	Apoline	Aries	9	22	23	very cold,
f	Aurelia		22	23	23	conſidering
g	Speſ	Taur.	5	24	22	the ſeaſon.
A	17 after Trin.		18	25	22	
b	Dionyſ.	Gem.	2	26	22	
c	Gideon		15	27	22	
d	Burchard		29	28	22	
e	Wilfride	Canc.	13	29	22	Cloudy wea-
f	Sun in Scorp.		27	om	22	ther with high
g	Caliztus	Leo	11	1	22	winds and
A	18 after Trin.		25	2	22	ſtorms of hail.
b	Gallus	Virgo	9	3	22	
c	Florence		24	4	22	
d	S. Luke Evan.	Libra	8	5	22	
e	Ptolomy		22	6	23	
f	Tres Mich.	Scorp.	6	7	23	Cold and
g	Urſula		20	8	23	froſty weather
A	19 after Trin.	Sagit.	3	9	23	may now be
b	Term begins		16	10	24	expected.
c	Salome		29	11	24	
d	Criſpine	Capr.	11	12	24	
e	Evariſtus		23	13	25	
f	Menſ. mich. fa.	Aquar.	5	14	25	
g	Sim. & Jude		17	15	26	
A	20 after Trin.		29	16	26	
b	German	Piſc.	11	17	27	
c	Quintan faſt		23	18	27	

November hath xxx days.

Full moon 5 day, 31 min. past 3 in the morning
Last quarter 12 day, 54 min. past 2 in the morning
New moon 19 day, 23 min. past 3 in the morning
First quarter 27 day, 18 min. past 4 in the morning.

1	D	All Saints	Aries	5	19	28	
2	E	All souls		18	20	28	Windy with
3	F	Craft. Anim.	Taur.	1	21	29	snow at the
4	G	Modestus		14	22	30	beginning.
5	A	Powder plot		27	23	31	
6	b	Leonard	Gem.	11	24	32	
7	c	willibald		25	25	33	
8	d	Claudius	Canc.	9	26	34	
9	e	Theodore		24	27	34	Cloudy and
10	f	Triphon	Leo	8	28	35	dark weather
11	g	Martine		22	29	36	now, and tu-
12	a	22 after Trin.	Virgo	6	0	36	bulent.
13	b	Craft. Mart.		20	1	37	
14	c	Frederick	Libra	4	2	38	
15	d	Leopold		18	3	39	
16	e	Edmond	Scorp.	1	4	40	
17	f	Hugo		15	5	41	Windy and
18	g	Octab. Mart.		28	6	42	clear like to
19	a	23 after Trin.	Sagit.	11	7	43	freez.
20	b	Edmund K.		24	8	44	
21	c	Oblat. Mary	Capr.	7	9	45	
22	d	Cicily Virg.		19	10	46	Good weather
23	e	Clement	Aquar.	1	11	47	for the season
24	f	Chrysogonus		13	12	48	toward the
25	g	Quind. Mart.		25	13	49	end.
26	a	24 after Trin.	Pisces	7	14	50	
27	b	Oda Virg.		19	15	51	
28	c	Term ends	Aries	1	16	52	
29	d	Saturn fast		13	17	53	
30	e	S. Andrew		26	18	54	

December hath xxxi days.

Full moon 4 day, 8 min. past 5 afternoon
Last quarter 11 day, 38 min. past 8 beforenoon
New moon 18 day, 33 min. past 8 at night
First quarter 26 day, 21 min. past midnight.

1	f	Longinus	Taur.	8	19	56	
2	g	Candidus		22	20	57	Cloudy and
3	A	Advent Sund.	Gem.	6	21	59	frosty weather
4	b	Barbara		20	23	0	now expect.
5	c	Sabina	Canc.	4	24	1	
6	d	Nicholas		19	25	2	
7	e	Agathon	Leo	4	26	4	
8	f	Conce. of M.		18	27	5	Very uncon-
9	g	Joachim	Virgo	3	28	6	ſtant and
10	A	2 ſun. in Adv.		17	29	7	variable.
11	b	Sun in Capri.	Libra	1	0	9	
12	c	Valerius		15	1	10	
13	d	Lucia		28	2	11	
14	e	Nicaſius	Scorp.	11	3	12	
15	f	Abraham		25	4	14	
16	g	O Sapientia	Sagit.	7	5	15	
17	A	3 ſun. in Ad.		20	6	16	
18	b	Chriſtopher	Capr.	3	7	18	Cold and
19	c	Nemeſius		15	8	19	cloudy with
20	d	Ember week		27	9	20	ſnow.
21	e	S. Thomas	Aquar.	8	10	22	
22	f	Theodoſius		21	11	23	
23	g	Victor faſt	Piſces	3	12	24	
24	A	4 ſun. in Adv.		15	13	25	
25	b	Chriſt's birth		27	14	27	Fine mild
26	c	S. Stephen	Aries	9	15	28	weather for
27	d	S. John		21	16	29	the ſeaſon.
28	e	Innocents	Taur.	4	17	31	
29	f	Creſcens		17	18	32	
30	g	David	Gem.	0	19	33	
31	A	Sun. aft. Chri.		14	20	34	

A Regal Table in a more exact manner.

The Year, Moneth, and Day, (accounting the Year to begin *Jan.* 1.) whereon every K. and Q. of *Eng.* since the Conq. began their reign.			The number of Years, Moneths, & Days, that every K. & Q. reign. 28 da. to a mon.				The num. of y. expired in this since they began to reign: as also since they ended.	
K. W. Conq.	1066	Octob. 14	20 y	11 m	22 d	616		
W. Rufus	1087	Sept. 9	12 y	11 m	18 d	595	W Conq.	
Henry 1	1100	Auguſt 1	35 y	4 m	11 d	582	W. Rufus	
Stephen	1134	Decem. 2	18 y	11 m	18 d	547	Henry 1	
Henry 2	1154	Octob. 25	34 y	9 m	2 d	528	Stephen	
Richard 1	1189	July 6	9 y	9 m	0 d	493	Henry 2	
John	1199	April 6	17 y	7 m	0 d	483	Richard 1	
Henry 3	1216	Octob. 19	56 y	1 m	0 d	466	John	
Edward 1	1272	Nov. 16	34 y	8 m	6 d	410	Henry 3	
Edward 2	1307	July 7	19 y	7 m	5 d	375	Edward 1	
Edward 3	1327	Jan. 25	50 y	5 m	7 d	356	Edward 2	
Richard 2	1377	June 21	22 y	3 m	14 d	305	Edward 3	
Henry 4	1399	Sept. 29	13 y	6 m	3 d	283	Richard 2	
Henry 5	1413	Marc. 20	9 y	5 m	24 d	269	Henry 4	
Henry 6	1422	Aug. 31	38 y	6 m	16 d	260	Henry 5	
Edward 4	1461	March 4	22 y	1 m	8 d	222	Henry 6	
Edward 5	1483	April 9	0 y	2 m	18 d	199	Edward 4	
Richard 3	1483	June 22	2 y	2 m	5 d	199	Edward 5	
Henry 7	1485	Aug. 22	23 y	10 m	24 d	197	Richard 3	
Henry 8	1509	April 22	37 y	10 m	2 d	173	Henry 7	
Edward 6	1547	Jan. 28	6 y	5 m	19 d	136	Henry 8	
Q. Mary	1553	July 6	5 y	4 m	22 d	129	Edward 6	
Q. Elizab.	1558	Nov. 17	44 y	4 m	15 d	124	Q. Mary	
K. James	1603	Mar. 24	22 y	0 m	3 d	80	Q. Elizab.	
Charles 1	1625	Mar. 27	22 y	10 m	3 d	57	K. James	
Charles 2	1649	Jan. 30	Longlive the King.			33	K. Charles 1	

The uſe of this Table in Example.

King *Henry* 8 began his Reign in the year of *Chriſt* 1509, *April* 22. He Reigned 37 years, 10 moneths, and 2 days. It is ſince he began his Reign 172 years compleat the 22 of *April* this year 1682. Now to know the time ſince the end of his Reign, before his name ſtanding on the right hand, you ſhall there find 136 years ſince he died, *January* 28. And ſo of the reſt.

SWAL-

SWALLOW.

The latter part of this

ALMANACK

for the Year of our

LORD GOD

1682.

Being the 2d after Biſſextile or Leap-year, and from the Conqueſt of *England* by *William* Duke of *Normandy* 615 years.

Wherein are contained an account of the Eclipſes, the times of the Sun's entering into the four Cardinal Signs, many neceſſary notions, together with pleaſant and uſefull Tables for the Weights and Meaſures of ſeveral Commodities, and an exact Table of Board and Timber meaſure, with other things very profitable, and delightfull.

Poma dat Autumnus: formoſa eſt meſſibus Æſtas: Ver præbet flores: Igne levatur Hyems.

CAMBRIDGE,
Printed by *John Hayes*, Printer to the Univerſity, 1682.

Of the Eclipſes this year.

TWO Eclipſes of Moon will happen this Year, and theſe total and almoſt Central; but one of them onely will be viſible to us in *England*, and that will be the firſt which happens on the 11 day of *February*, about 11 of the Clock at night: it will be celebrated in almoſt 4 degrees of the Coeleſtial Sign *Virgo*, and will be very great and of long continuance, the quantity Eclipſed being almoſt 20 digits.

The ſecond Eclipſe will be on the 8 day of *Auguſt*, about 6 of the Clock in the morning, and therefore inviſible as to us, it happens in 25 degrees of *Aquarius*, and will in it ſelf be almoſt as great an Eclipſe as the former.

The Sun alſo will twice come within Ecliptical boundaries, *viz.* on the 28 of *January* about 4 afternoon; and on the 24 of *July* about 9 beforenoon; but it being ſo ſmall a matter it's not material to be further minded.

The famous Conjunction of the two Coeleſtial malefick *Saturn* and *Mars*, is alſo worth obſerving, which happens the 12 day of *September*, in 17 degrees of the Regal Sign *Leo*.

Of the Suns Entrance into the four Cardinal Signs *this year.*

HE enters *Aries*, *March* the 10, 30 min. paſt 3 in the morning, and then begins our Spring quarter.

He enters *Cancer*, *June* the 11, 15 min. paſt 3 in the morning, and then begins our Summer quarter.

He enters *Libra*, *September* the 12, 32 min. paſt 8 at night, at which time begins our Autumn quarter.

He enters *Capricorn*, *December* the 11, 51 min. paſt 8 beforenoon, and then begins our Winter quarter.

Thus

THus having given an account of the Eclipſes and the times the Sun enters into the Cardinal Signs. I ſhall now give you ſome general directions, uſefull notions, together with pleaſant and eaſie Tables, for the weights and meaſures of moſt commodities now traded with in *England*.

All meaſures of application or length are denominated from the parts of the body, as the Palm, the Foot, and the like, but are indeed in *England* taken from the Yard Standard kept in *Guild-Hall* in *London*, of which the third part is a foot, and the 36 an inch. Set down in the firſt Table from an inch to a mile.

Now although the Table is ſo eaſie that I preſume there are but few but will underſtand it at firſt ſight, yet for the benefit of thoſe that do not; I ſhall as briefly as I can explain it.

This Table conſiſts of ſeveral columns: and may be conſidered, either as to the columns or ſpaces between line and line from top to bottom, or by the ſpaces contein'd between line and line ſide-ways, or from the left hand to the right: now the figures are always of the denomination is ſignified at the top of the column they belong to; & are equal to the reſt of the figures they ſtand with between the ſame lines from right to left: as for example, to begin at the top, 3 inches are equal to a palm, 9 inches equal to 3 palms, equal to 1 ſpan and ſo of the reſt. So in a yard there is contained 2 cubits, 3 foot, 4 ſpan, 12 palms, 36 inches, the other part of the Table contains ſquare meaſures or ſuperficial, and the way of uſing it is the ſame with the former; as for example, 144 ſquare inches are equal to a foot ſquare. 1296 inches are equal to 9 feet, or 1 yard ſquare. Thoſe figures that come after ſuch a mark as this ∟ the firſt of them ſtand for the 10th part the 2 for the hundred part.

Table of Square Measure.

Acres	4	160	174 29	840	4356	43560	6272640
Rood	40	4356	1210	10890	108900	1568160	
Pole	1089	30¼	272¼	2724	39204		
Pace	2177	25	36000				
Yard	9	1295					
Feet	144						
Inches							

Table of Long Measure.

Inch	Palm	Span	Foot	Cubit	Yard	Ell	Paces	Fathom	Pole	Furlong	Mile
3											
9	3										
12	14	1⅓	1								
18	6	2	1½	Cubit							
36	12	4	3	2	Yard						
45	15	5	3¾	2½	1¼	Ell					
60	20	6⅔	5	3⅓	1⅔	1¼	Paces				
72	24	8	6	4	2	1¼	1⅕	Fathom			
198	66	22	16½	11	5½	4⅖	3 2/10	2¼	Pole		
7920	2640	880	660	440	220	176	132	110	40	Furlong	
63360	21120	7040	5280	3520	1760	1408	1056	880	320	8	Mile

In the Table of Long measure it is said a Pole or Perch is 16½ feet, which is the ſtatute perch, beſides which there are other perches or poles, as 78 feet for fen and wood-land, 21 for forreſts, *Lancaſhire* and *Iriſh* meaſure, and 18¾ *Scotch*.

The

The measure for horses is by the handfull equall to 4 inches.

In *England* we make use of 2 sorts of weights *Troy* and *Averdupoize*.

By *Troy* weight Gold, Silver, Jewels, Amber, Electuaries, Bread corn, and Liquors, are weighed, and from this *Troy* pound are taken all measures, for wet and dry Commodities.

By *Troy* weights, are weighed all *Grocery* ware, and in short all manner of things that can waste: the Tables for *Troy* and *Averdupoize* must be used like the foregoing for measures:

Troy Weight. / *Averdupoize Weight.*					
			Pound.	12	240 | 5760
			Ounc.	20	480
Scrupels				*pen.W.*	24
3	*Drams*				*Grains*
24	8	*Ounces*			
384	128	16	*Pound*		
43008	14336	1792	112	*Hund.*	
860160	286720	35840	2240	20	*Tun*

Although the pound *Troy*, be bigger then the pound *Averdupoize*, yet the ounce *Troy* is lesser then the ounce *Averd.* the proportion of a *Troy* pound to *Averd.* pound being as 17 to 14, but of a *Troy* ounce to an *Averd.* ounce as 31 to 56.

A Tun weight *Averdupoise* is always 20 hund. of all things except Lead which is 19 hund. $\frac{1}{2}$.

Allom, Cinnamon, Nutmegs Pepper and Sugar have 13 l. $\frac{1}{2}$ to the stone, and 108 l. to the hundred. *Essex* Cheese or Butter the Clove is 8 pound, the Wey 32 Cloves, or 256 l. In *Suffolk* the Clove is 8 l. the Wey 42 Cloves or 336 l.

Hay ſhould have 20 hund. but is ſould for 18 C. 36 truſſes or 2016 l. Wooll is ſould by the Clove or half ſtone 7 l. or by the ſtone 14 l. Tod 28 l. wey 182 l. Sack 364 l. Laſt 4368 l. Iron and Shot are weighed 14 l. to the ſtone, 28 l. to the quarter, 112 l. to the hundred, 20 C. to the Tun.

A Faggot of Steel is 120 l. a burden of Gad Steel is 9 ſcore or 180 l. for the weight of Butter and Sope 56 l. of Butter, and 60 l. of Sope make a Firkin, and 4 firkins a Barrel of either.

Dry Meaſures of capacity are raiſed from the Gallon conteining 8 pints, which ſhould be contain'd in 272½ Cubick inches, and ſhould hold of pure running water 9 l. 13 oun. 12 dra. ½ of *Averd.* weight.

Pints								
8	*Gal.*							
16	2	*Pec.*						
64	8	4	*Buſh.*					
128	16	8	2	*Strik*				
256	32	16	4	2	*Coomb*			
512	64	32	8	4	2	*Seam or quarter*		
3072	384	102	48	24	12	6	*Wey*	
5120	640	320	80	40	20	10	12	*Laſt*
A	1 l.	8 l.	16	64	128	256	512	3072	5120
B	14 ou.	7 l.	14	56	1 c.	2 c.	4 c.	24 c.	40 c.

This Table is exactly of the ſame nature with the former, onely at the bottom are added 2 ſpaces mark'd with A and B, in the line A is expreſſed the reſpective Meaſures weight of wheat in *Troy* weight, in the line B in *Averd.* for example a peck of wheat weighs 16 *Troy*, 14 *Averd.* and ſo for the reſt.

Meal is weighed as Corn, but the common repute is that a gallon of Wheaten Meal, weighs 7 l. *Averd.* and 8 l.

l. 6 oun. 4 pen. weight *Troy*, and ſo a Buſhel 56 l. *Averd.* and 68 l. 1 oun. 12 pen. weight *Troy*. All other Grain, likewiſe Salt, Lime, Coales, &c. follow this Meaſure which is called *Wincheſter* Meaſure. But when Sea Coale and Salt are meaſured with this Buſhel, they are heaped, or elſe there is allowed five ſtriked Pecks to the Buſhel, and this is called Water meaſure, 36 ſuch Buſhells make a Chaldron of Coales; and on Ship-board they allow 21 Chaldron to the ſcore.

Liquid Meaſure is either for Wine, or Ale and Beer meaſure; the Gallon for Wine meaſure contains 231 Cubical inches and ſhould hold of running water, 8 l. 1 oun. 11 dra. *Averd.* and 9 l. 10 oun. 1 pen. $\frac{1}{4}$ weight *Troy*.

A Table of Wine meaſure, A Tun of Wine weighing Averd. 17 c. *weight one Pint* 1 l. *and half an ounce* Troy.

Pints							
8	*Gall.*						
144	18	*Runalet*					
252	31 $\frac{1}{2}$	1 $\frac{1}{4}$	*Barrel*				
336	42	2 $\frac{1}{3}$	1 $\frac{1}{3}$	*Terce*			
504	63	3 $\frac{1}{2}$	2	1 $\frac{1}{2}$	*Hogshead*		
672	84	4 $\frac{2}{5}$	2 $\frac{2}{3}$	2	1 $\frac{1}{3}$	*Puntion*	
1008	126	7	4	3	2	1 $\frac{1}{2}$	*Butt*
2016	252	14	8	6	4	3	2 *Tun*

In a Gallon for Ale or Beer there is 282 ſolid inches, and it holds of pure water 10 l. 3 oun. 142 dr. *Averdupoiſe.*

Hog.	2	4	8	64	512
Bar.	2	4	32	256	
Kild.	2	16	128		
Firk.	8	64			
Gall.	8				
Pint					

Ale Meaſure. *Beer Meaſure.*

18	*Gall.*			
72	9	*Firk.*		
144	18	2	*Kild.*	
288	36	4	2	*Bar.*
576	72	8	4	2	*Hog.*

Veſſels for Butter, Fiſh, and Sope follow the Ale meaſure of a gallon, 8 Gallons make a Firkin, 2 Firkins a Kilderkin, 2 Kilderkins an Ale Barrel, and 12 Ale Barrels a Laſt.

A Table of Board and Timber measure with the squares from 4 to 30 exactly calculated.

Board measure.	Inches Quarters	Squares.	Timber measure.	Board measure	Inches Quarters	Squares.	Timber measure.
36 0 0	4	16	108 0 0	16 0 1	9	81	21 3 3
33 8 8	1	18	96 0 0	15 5 7	1	85	20 3 3
32 0 0	2	20	86 4 0	15 1 6	2	90	19 2 0
30 3 1	3	22	78 5 4	14 7 7	3	95	18 1 9
28 8 8	5	25	69 1 2	14 4 0	10	100	17 2 8
27 4 4	1	27	64 0 0	14 0 2	1	105	16 4 6
26 1 3	2	30	57 6 0	13 7 1	2	110	15 7 1
25 0 0	3	33	52 3 6	13 3 9	3	115	15 0 3
24 0 0	6	36	48 0 0	13 0 9	11	121	14 2 8
23 0 4	1	39	44 3 0	12 8 0	1	126	13 7 1
22 1 5	2	42	41 1 4	12 5 2	2	132	13 0 9
21 3 3	3	45	38 4 0	12 2 9	3	138	12 5 2
20 5 7	7	49	35 2 6	12 0 0	12	144	12 0 0
19 18 6	1	52	33 2 3	11 7 5	1	150	11 5 2
19 2 0	2	56	30 8 6	11 5 2	2	156	11 0 8
18 5 8	3	60	28 8 0	11 2 9	3	162	10 6 7
18 0 0	8	64	27 0 0	11 0 7	13	169	10 2 2
17 4 5	1	68	25 4 1	10 8 7	1	175	9 8 7
16 9 4	2	72	24 0 0	10 6 7	2	182	9 4 9
16 4 6	3	76	22 7 4	10 4 7	3	189	9 1 4

Board measure.			Inches Quarters	Squares.	Timber measur.			Board measur.			Inches Quarters.	Squares.	Timber measur.		
10	2	8	14	169	8	8	1	6	8	6	21	441	3	9	2
10	1	0	1	203	8	5	1	6	7	7	1	451	3	8	3
9	9	3	2	210	8	2	3	6	6	9	2	462	3	7	4
9	7	6	3	217	7	9	6	6	6	2	3	473	3	6	5
9	6	4	15	225	7	6	8	6	5	4	22	484	3	5	7
9	4	0	1	232	7	4	4	6	4	7	1	495	3	4	9
9	2	9	2	240	7	2	0	6	4	0	2	506	3	4	1
9	1	4	3	248	6	9	7	6	3	3	3	517	3	3	4
9	0	0	16	256	6	7	5	6	2	6	23	529	3	2	7
8	8	6	1	264	6	5	4	6	1	9	1	540	3	2	0
8	7	3	2	272	6	3	5	6	1	2	2	552	3	1	3
8	6	0	3	280	6	1	6	6	0	6	3	564	3	0	6
8	4	7	17	289	5	9	8	5	0	0	24	576	3	0	0
8	3	5	1	297	5	8	1	5	9	4	1	588	2	9	4
8	2	3	2	306	5	6	4	5	8	8	2	600	3	8	8
8	1	1	3	315	5	4	8	5	8	2	3	612	2	8	2
8	0	0	18	324	5	3	3	5	7	6	25	625	2	7	6
7	8	9	1	333	5	1	9	5	7	0	1	637	2	7	1
7	7	8	2	342	5	0	5	5	6	5	2	650	2	6	5
7	6	8	3	351	4	9	2	5	5	9	3	662	2	6	1
7	5	8	19	361	4	7	9	5	5	4	26	676	2	5	5
7	4	8	1	370	4	6	7	5	4	8	1	689	2	5	1
7	3	9	2	380	4	5	5	5	4	3	2	702	2	4	6
7	2	9	3	390	4	4	3	5	3	8	3	715	2	4	2
7	2	6	20	400	4	3	2	5	3	3	27	729	2	3	7
7	1	1	1	410	4	2	1	5	2	8	1	749	2	3	2
7	0	2	2	420	4	1	1	5	2	3	2	756	2	2	8
6	9	4	3	431	4	0	1	5	1	9	3	767	2	2	5

Board measur.	Inches Quarters.	Squares.	Timber measur.	Board measur.	Inches Quarters	Squares.	Timber measur.
1 4	28	784	2 2 0	4 3 6	33	1089	1 5 9
1 0 9	1	788	2 1 0	4 3 3	1	1104	1 5 6
1 0 5	2	812	2 1 2	4 3 0	2	1122	1 5 4
1 0 0	3	826	2 0 9	4 2 7	3	1139	1 5 2
9 6	29	841	2 0 5	4 2 3	34	1156	1 4 9
9 2	1	855	2 0 2	4 2 0	1	1173	1 4 7
8 8	2	870	1 9 8	4 1 8	2	1190	1 4 5
8 4	3	885	1 9 5	4 1 4	3	1208	1 4 3
8 0	30	900	1 9 2	4 1 1	35	1225	1 4 1
7 6	1	915	1 8 9	4 0 8	1	1242	1 3 9
7 2	2	930	1 8 6	4 0 5	2	1260	1 3 7
6 8	3	945	1 8 3	4 0 3	3	1278	1 3 5
6 4	31	961	1 7 9	4 0 0	36	1296	1 3 3

The Explanation and use of the Table.

THe Table consists of two principle Columns, and these two are again divided each Column into four, so that it consists of eight Columns.

The first of which entituled Board measure, shews how many Inches in length are required to the making of a Foot of Board according to the breadth given.

The second, entituled, Inches and Quarters, contains the

the breadth in Inches and Quarters, beginning at 4 Inches and proceeding thus, 4. 1, 2, 3. which are 4 Inches $\frac{1}{4}$ $\frac{2}{4}$ & $\frac{3}{4}$ of an Inch, and ſo likewiſe of the reſt.

The third entituled Squares, ſhews the *area* or content of a Square whoſe ſide are the Inches and parts of Inches ſtanding equal with the ſaid Square Inches.

The fourth entituled Timber meaſure ſhews how many Inches and parts of Inches make a Foot of Timber according to the ſide of the Square given, or the content of its baſe. The other four Columns are of the ſame nature with the former explained, and therefore I ſhall proceed to the uſe of the Table.

The uſe of the Table Exemplified.

Firſt ſuppoſe I have a Board 13 Inches and $\frac{2}{4}$ broad, and I deſire to know how much in length thereof will make a Foot: firſt, I ſeek in the Column entituled, Inches and Quarters for 13 and $\frac{2}{4}$ and againſt the ſame under the title of Board meaſure, I find 10 Inches, 6 primes, and 7 ſeconds will make a Foot at that breadth, the like may be practiſed for any other breadth of Board or Glaſs, or Cieleing, or Pavement: and if you deſire to know how many Bricks will floor a Room, firſt find the area or content of the floor in ſquare Inches, and then find the content of one Brick, divide thereby, and the quotient will ſhew you how many Bricks will ſuffice for the flooring of the Room, you may alſo by the help of the Column of Squares readily find a ſquare equal to the baſe of any Parallelepipedon or piece of Timber, which is thicker than it is broad, *exemp. gr.* Suppoſe a piece of Timber to be 8 Inches thick and 12 Inches broad, if I multiply theſe ſides one by another, the product will be

be 96 the content of the base of the Parallelepipedon which seeking in the Column of Squares I find not, but I find 95 the neareſt to it ſtanding againſt 9 Inches and ¼ therefore I ſay, 9 Inches and ¾ *ferè* will make the ſide of a ſquare board whoſe area will be equal to the Parallelogram, or baſe of the Paralle'epipedon aforeſaid, now looking into the Column of Timber meaſure right againſt this 9 Inches and ¾ I find 18 Inches, 1 prime, 5 ſeconds, which is the length of a Foot of that piece of Timber according to the aforeſaid thickneſs or content of its baſe. You may likewiſe ſee by this Table how to reduce a parallelogram into a ſquare, or to perform many ſuch like things of good uſe, and with much delight, and as profitable.

Some ſhort fundamental Rules of meaſuring Superficies and Solids, and how to meaſure Round Timber.

Firſt for a Parallelogram or a figure that is Longer than it is broad, multiply both the ſides one by the other, and you ſhall have the content, as ſuppoſe the length be 20 and the breadth 9, theſe multiplied produce 180, the content ſought.

The area of a Triangle is produced by multiplying half the baſe into the height, or the baſe into half the height, becauſe every Triangle is equal to half the Parallelogram of the ſame height and length, and under the ſame parallels, as ſuppoſe a Triangle whoſe baſe is 20 the length of the former Parallelogram, and the height 9 the breadth thereof, now 10 into 9 makes 90 the area of the Triangle.

Thus you may do with any irregular figure by dividing it into Triangles, and then finding their contents add them together, and you ſhall have the content of the whole.

To

To measure Circles.

THe area of a Circle is produced by multiplying half the Circumference into the Semidiameter, as suppose the half Circumference is 9 and the Semidiameter 3 these multiplied produce 27 the area or content sought. For every Circle as *Archimedes* demonstrates, is equal to the Triangle, whose Base is equal to the Circumference, and height equal to the Semidiameter of the Circle.

The Proportion of a Circle to the Square of the Diameter is as 11 to 14 *ferè* therefore by the Rule of three, say as 11 to 14; so the area of the Circle suppose 27 to the Square about the Circle, then multiply 27 by 14 and divide by 11 and the Quotient shews you your desire.

The Diameter of a Circle given to find the Circumference.

THe Proportion will be as 7 to 22 so the Diameter which suppose 28, to 88, the Circumference, which is effected by multiplying 28 by 22 and dividing by 7, according to the Rule of three.

In like manner having the Circumference you may find the Diameter onely by converting the terms, saying as 22 to 7, so 88 the Circumference to 28 the Diameter, so that the Circumference of a Circle is trible of the Diameter and about $\frac{1}{7}$ of it.

To make a Square equal to a Circle, extract but the Square root of the content, and you will have the side of a Square equal to the Circle; or by the foregoing Table look for a Square number equal to it, or that which comes neareſt to it, under the title of Squares and right against it

it under the title of Inches and Quarters you will find the ſide.

The Square within the Circle is equal to half the Square without, therefore take half the content of the Square without, and extract the Square root or find the ſide of it in the foregoing Table by looking among the Squares, you will find the ſide anſwering to it under the title of Inches and Quarters, as for example, ſuppoſe the content of the Square without be 800 Inches or Feet, half of this is 400, then looking 400 under the title of Squares you will find 20 ſtanding againſt it which is the ſide of that Square which is to be inſcribed within the Circle. And note that if you enter the Table with Feet you will be anſwered with Feet and parts of a Foot, if with Yards, Yards and parts of a Yard, &c. and note likewiſe that what hath been ſaid of Boards may be applyed to any the like Superficies as Land, Wainſcoat, &c.

For the meaſuring of round Timber or Stone, &c. you muſt know that round Timber repreſents Cylinders, now the Solidity of a Cylinder is found by multiplying the content of the Baſe which is a Circle by the height, and the product gives the content or Solidity, as if the Baſe be 27 the height 6 theſe multiplied produce 162. The Solidity of a Cylinder or round piece of Timber, in like manner are Priſmes meaſured.

Cones and Pyramids are the third part of Cylinders, and Priſmes, repreſenting taper Timber their Solidity is found by multiplying the content of their Baſes by the third part of their height by finding the content of the Baſe of the Cylinder or round piece of Timber, you may by the former Table find how many Inches in length of that piece will make a Foot Solid, as ſuppoſe the area of the baſe be 27, look 27 under the title of Squares, and right againſt it in the row of Timber meaſure ſtands 64 the length of a Foot Solid.

A plain and eaſie Table ſhewing the true Intereſt due upon any ſum of money from five ſhillings to an hundred pounds, for a year or under, after the rate of ſix pounds in the hundred.

	1 Mon			3 Mon.			6 Mon.			9 Mon.			A year.		
	ſh	*p.*	*q*	*ſh*	*p*	*q*	*ſh.*	*p*	*q.*	*ſh*	*p*	*q*	*ſh.*	*p.*	*q*
5	0	0	1	0	0	3	0	1	3	0	1	2	0	3	2
10	0	0	2	0	1	3	0	3	2	0	5	0	0	7	0
15	0	0	3	0	2	2	0	5	1	0	8	2	0	10	2
1	0	1	0	0	3	2	0	7	0	0	10	2	1	2	1
2	0	2	1	0	7	0	1	2	1	1	9	1	2	4	2
3	0	3	2	0	10	2	1	9	1	2	7	2	3	6	3
4	0	6	3	1	2	1	3	4	2	3	6	3	4	9	0
5	0	4	0	1	6	0	3	0	0	4	6	0	6	0	0
6	0	7	0	1	9	2	3	7	0	5	4	2	7	2	1
7	0	8	1	2	1	0	4	2	1	6	3	1	8	4	2
8	0	9	2	2	4	2	4	9	1	7	3	1	9	6	3
9	0	10	3	2	8	1	5	4	2	8	0	3	10	9	0
	po	*ſh*	*p*	*po*	*ſh*	*p*	*po*	*ſh*	*p*	*po*	*ſh.*	*p*	*po*	*ſh.*	*p.*
10	0	1	0	0	3	0	0	6	0	0	9	0	0	12	0
20	0	2	0	0	6	0	0	12	0	0	18	0	1	4	0
30	0	3	0	0	9	0	0	18	0	1	7	0	1	16	0
40	0	4	0	0	12	0	1	4	0	1	16	0	2	8	0
50	0	5	0	0	15	0	1	10	0	2	5	0	3	0	0
60	0	6	0	0	18	0	1	16	0	2	14	0	3	12	0
70	0	7	0	1	1	0	2	2	0	3	3	0	4	4	0
80	0	8	0	1	4	0	2	8	0	3	12	0	4	16	0
90	0	9	0	1	7	0	2	14	0	4	1	0	5	8	0
100	0	10	0	1	10	0	3	0	0	4	10	0	6	0	0

Shill 1 *Pounds* 1 1 *Tens of pounds.*

Find the principal in the firſt Column, & in the other you have the intereſt due for one, three, ſix, nine, or twelve moneths.

A

A Table of the hour and minute of Sun-rising every second day.

	Januar.		Februa.		March		April		May		June	
	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	m.	ho.	mi.
1	8	4	7	15	6	16	5	14	4	21	3	46
3	8	1	7	11	6	12	5	10	4	17	3	45
5	7	58	7	7	6	8	5	6	4	14	3	44
7	7	56	7	3	6	4	5	2	4	11	3	43
♒	7	53	6	57	6	0	4	58	4	7	3	43
♓	7	51	6	53	5	56	4	54	4	5	3	43
11	7	48	6	50	5	52	4	50	4	2	3	43
13	7	45	6	46	5	48	4	46	4	0	3	44
15	7	43	6	42	5	44	4	43	3	58	3	45
17	7	40	6	38	5	40	4	39	3	56	3	46
19	7	37	6	34	5	36	4	35	3	54	3	47
21	7	33	6	30	5	32	4	32	3	52	3	48
23	7	29	6	26	5	29	4	29	3	50	3	49
25	7	25	6	22	5	25	4	25	3	48	3	50
27	7	21	0	0	5	21	4	22	3	47	3	52

	July		August		Septem.		Octob.		Nov.		Decem.	
	ho.	mi.	ho.	mi.	ho.	mi.	ho.	mi.	ho.	m.	ho.	mi.
1	3	54	4	39	5	39	6	41	7	37	8	15
3	3	56	4	43	5	42	6	45	7	40	8	15
5	3	58	4	46	5	46	6	49	7	44	8	16
7	4	0	4	50	5	50	6	52	7	47	8	17
♋	4	3	4	54	5	54	6	56	7	51	8	17
11	4	6	4	58	5	58	7	0	7	54	8	17
13	4	8	5	2	6	2	7	4	7	57	8	17
15	4	11	5	6	6	6	7	8	7	59	8	16
17	4	15	5	10	6	11	7	12	8	1	8	15
19	4	18	5	14	6	15	7	15	8	3	8	15
21	4	21	5	18	6	20	7	19	8	5	8	14
23	4	24	5	21	6	24	7	22	8	7	8	12
25	4	27	5	25	6	28	7	25	8	9	8	10
27	4	30	5	29	6	32	7	29	8	11	8	9
30	4	34	5	33	6	36	7	32	8	13	8	7

Seek the day on the side; and right against it, in every moneth, you have the hour and minute of Sun-rising.

Look how many minutes the Sun rises after 3, 4, 5, 6, 7, 8.
So many he sets before 9, 8, 7, 6, 5, 4.

A Table of Annuities and Reversions.

What 1 pound to be paid any number of years hence, under 31, is worth in ready money.				What 1lb Annuity to continue any time under 31 years is worth in ready money at 6 *per cent.*			
	sh.	d.	q.		lb.	sh.	d.	q.
1	18	10	2	1	0	18	10	2
2	17	9	2	2	1	16	8	0
3	16	9	2	3	2	13	5	2
4	15	10	0	4	3	9	3	0
5	14	11	1	5	4	4	3	0
6	14	1	1	6	4	18	4	1
7	13	3	2	7	5	11	7	3
8	12	6	2	8	6	4	2	1
9	11	10	0	9	6	16	0	1
10	11	2	0	10	7	7	2	1
11	10	6	2	11	7	17	8	3
12	9	11	1	12	8	7	8	0
13	9	4	2	13	8	17	0	2
14	8	10	0	14	9	5	10	3
15	8	4	0	15	9	14	3	0
16	7	10	2	16	10	2	1	2
17	7	5	0	17	10	9	6	2
18	7	0	0	18	11	16	6	2
19	6	7	1	19	11	3	2	0
20	6	2	3	20	11	9	4	3
21	5	10	2	21	11	15	3	1
22	5	6	2	22	12	0	10	0
23	5	2	3	23	12	6	0	3
24	4	11	1	24	12	11	0	0
25	4	7	2	25	12	15	8	0
26	4	4	3	26	13	0	0	3
27	4	1	3	27	13	4	2	2
28	3	11	0	28	13	8	1	3
29	3	9	1	29	13	11	9	2
30	3	5	3	30	13	15	3	2

The use of these Tables are both after a manner, for finding what one pound will yield, you may by multiplication know what 5lb or 10lb or 100lb will yield.

As for Example.

A Lease or Annuity being worth 30lb *per annum* which is to continue 20 years, what may the value thereof be in ready money? You may see by the last Table that one pound Annuity to continue twenty years is worth 11lb 9sh 4d 3q which multiply by 30 and you shall have your desire.

Note that the first Table shews what one pound to be paid any number of years hence is worth in ready money, that is when the interest of the yearly decrease is deducted, or Rebated, as 16sh to be paid 20 years hence is now worth but 6sh 2d 3q.

The second, what one pound yearly continuing is worth, the interest in like manner being deducted.

Note also that the fundamental for Rebate is thus, say as 106lb to 100, so 100lb to 94 6 9$\frac{1}{2}$

A

A Table shewing how to find Easter for ever by the help of the Golden Number and Dominical Letter.

G.N.	A	B	C	D	E	F	G
i	apr. 9	10	11	12	6	7	8
ii	Mar. 26	27	28	29	30	31	apr. 1
iii	Apr. 16	17	18	19	20	14	15
iv	Apr. 9	3	4	5	6	7	8
v	Mar. 26	27	28	29	23	24	25
vi	Apr. 16	17	11	12	13	14	15
vii	Apr. 2	3	4	5	6	mar. 31	apr. 1
viii	Apr 23	24	25	19	20	21	22
ix	Apr. 9	10	11	12	13	14	8
x	Apr. 2	3	mar 28	29	30	31	apr. 1
xi	Apr. 16	17	18	19	20	21	22
xii	Apr. 9	10	11	5	6	7	8
xiii	Mar. 26	27	28	29	30	31	25
xiv	Apr. 16	17	18	19	13	14	15
xv	apr 2	3	4	5	6	7	8
xvi	Mar 26	27	28	22	23	24	25
xvii	Apr. 16	10	11	12	13	14	15
xviii	Apr. 2	3	4	5	mar. 20	31	apr. 1
xix	Apr 23	24	18	19	20	21	22

Yea. of our Lord	1680	1681	1682	1683	1684	1685	1686
G.N.	9	10	11	12	13	14	15
D.Le.	DC	B	A	G	F	E	D

The foregoing Table explained.

BY the former Table you may eaſily find *Eaſter*, (and from thence the other Moveable Feaſts) in any year to come. The uſe is thus, You muſt firſt know the Golden Number and Dominical Letter for that year in the which you would know when *Eaſter* will fall, which you may find for 7 years at the bottom of the Table, then enter the Table with the Golden Number in the firſt Column and the Dominical Letter at the top, and in the common Angle is the day of the moneth whereon *Eaſter* falleth that year.

Example, this year 1682 the Golden Number is 11, the Dominical Letter A. I find 11 in the firſt Column, and I go right forward from 11 till I come under the Letter A, where I find *April* 16, upon which day *Eaſter* falls this year, thus do for any other year, onely in Leap-year, there being two Dominical Letters, work with the laſt of them as before.

Having found *Eaſter*, you may from thence find the other Moveable Feaſts, Shroveſund. is 7 weeks before *Eaſter*, Rogation-ſunday 5 weeks after *Eaſter*. The Thurſday after Rogation is Aſcenſion day, 7 weeks after *Eaſter* is Whitſunday, the Sunday following is Trinity-ſunday, the Thurſday after that is *Corpus Chriſti*.

Advent-ſunday, is always the neareſt Sunday to the Feaſt of S. *Andrew*, whether it be before it or after it.

The

The Names of the principal Fairs in *England*, as they have heretofore been set forth by others, and are now Corrected and continued for the common good.

January.

THe 5 day at Hicetford in Lancashire, the 6 day at Salisbury, Tuesday after at Melton-Mowbray, the Thursday after at Banbury: the third Tuesday in January at Potton: the 25 at Gravesend, Bristol, Churchinford, Northallerton in Yorkshire every Wednesday from Christmas till June.

February.

The 1 day at Bromley in Lancashire, the 2 at Reading in Barkshire, at Maidston, Bicklesworth, Bicklesfield, Bath, Lyn, Bagworth: the 6 day at Stafford for 6 days: the 14 at Oundle, Feversham: 24 at Henley upon Thames, Baldock: On Ashwednesday at Royston, Dunstable, Baton, Tamworth, Tunbridg, Lichfield, Exeter, Ciceter. The first Thursday in Lent at Banbury: the 26 at Stanford in Horse Fair.

March.

The 3 day at Bromel-brakes in Norfolk, 4 at Bedford, at Oakham: 12 at Alsome in Norfolk, Sudbury, Wooburn, Stanford, at Wye: 1[illegible] at Bodwin in Cornwall: 20 at Durham, Alesbury: Munday before our Lady day at Kendal, at Wisbich, 25 at Huntington, Northampton, Malden, Ashwel in Hartfordshire, Newcastle, Oney, S. Albans: Midlent Saturday at Saffron-walden: Palmsunday-eve at Wisbich, Worcester, Pomfret, on Goodfriday at Norwich, the Tuesday before Easter at Potton.

April.

Easter Munday at Oney in Bedfordshire, Gainsborough. Easter Tuesday at Daintry in Northamptonsh: Godmanchester, Schole in Norfolk, S. Edmundsbury. On Wednesday at Wellingborough in Northamptonsh. On Friday

in the ſame week at Darby. On Saturday at Bickleſworth: 2 day at Hitchin, at Rochford, Northfleet: 5 at Wallingford: 7 at Derby, 9 at Billingſworth, Bickleſworth: the 22 at Stabford, 23 at Ipſwich, Harbin in Norfolk, Northampton, Sapſar in Hartfordſhire, Charing, Hinningham, Tamworth, Bury in Lancaſhire. St Pombs in Cornwal, Ampthill, Chicheſter, Engfield, Gilford, Biſhops-Hatfield: the 25 at Buckingham, at Bourn in Lincolnſ. Colebrook, Dunmow in Eſſex, Darby, Oakham in Rutlandſhire: the 29 at Tenderden in Kent, Cleet. 30 at Beverly a week together.

May.

The 1 day at Swaffam, Haveril in Eſſex, Laytonbuzzard in Huntingtonſh. Rippon in Yorkſ. Reading, Maidſtone, Chelmford, Leiceſter, Litchfield, Lexfield in Suffolk, Stow, Stanſted, Tuxford in the Clay, the 3 day at Elſtow in Bedfordſh, Noneaton in Warwickſ. Thetford in Norfolk, Waltham Abby, Hinningham, Rochdale, Bramyard the 6 at Almeſbury, at Aſhford, 7 at Newton in Lancaſhire, Beverly, Oxford, Bath: the 8 at Maidſtone: the 15 at Rocheſter, Dunſtable, Magfield in Suffolk. On Rogation Munday at Reach. On Aſcenſion day at Thaxted, Beverly, Rippon, Sudminſter, Biſhopſtratford, S. Neots, Wickham in Lancaſhire, Middle-wich in Cheſhire, Chappel-Frith in Darbiſh. On Whitſun-even at Skipton in Craven. On Whitſun-Munday at S. Ives, Rygate in Surry, Bickleſworth, Bradford, Agmunſham in Buckinghamſh. On Whitſun-Tueſday at Newmarket. On Wedneſday at Royſton. Thurſday at Owndle in Northamptonſ. 26 at Lenham, 29 at Crainbrook.

June.

Trinity-even at Rowel, Kendal. On Corpus Chriſtday at Banbury, Biſhopſtratford, S. Neots, Coventry, Newbury. The 3 at Alesbury: 9 at Maidſtone. 11 at Breme in Norfolk, Bardfield in Eſſex, 17 at Hadſtock, 23 at S. Albans, Deerham in Norfolk, Shrewsbury, 24 at Halſon in Suffolk, Barnwel by Cambridge, Bedford, Colcheſter, Hartford,

Hereford, Leicester, Rumford, Reading, Windsor, Hallifax, Beverly, Haslingden, 26 at Bristol, Darby, 27 at Burton on Trent, Folstone. 28 at S Pombs in Cornw. 29 at Peterborough, Ashwel, Sudbury, Stebbing in Essex, Benington Hartfordshire.

July.

The first Tuesday at Potton. The 1. 2, 3 days at Congleton in Cheshire, 7 at Royston, Burntwood. The Munday after at Bodringham, at Canterbury: the 11 at Partney, at Stevenage: 20 at Uxbridge, Coolidge, Woodstock: the 21 at Ickleton, Bicklesworth, Norwich, Colchester, Newark upon Trent; 25 at Audley-end by Walden, Reading, Baldock, Darby, Dover, Erith, Ipswich, Stamford.

August.

The first day at Bedford, S. Neots, Dunstable, Feversham, Wisbich, Bicklesworth, Thaxted: the 3 at Peterborough: the 10 at Blackmore, Harply in Norfolk, S. Ives, Oxford, Banbury, Farnham, Brainford, Owndle: the 19 at Uxbridge, Huntington, Dunmow, Luton, Northampton: the 24 at London, Sudbury, Norwich, Oxford, Shallerton, Dover, Beggers-bush, Burton. the 28 at Ashford, Dainery: the 29 at Halson in Suffolk, Harlow-Bush in Essex, Watford.

September.

The first day at S. Giles in the Bush. On Thursday and Friday before the 8 day at Sandback in Cheshire. 7, 8, 9 at Woodbury-hill in Dorsetshire, 7 at Ware. 8 at Huntington, Bury in Lancashire, Partney, Wakefield, Northampton, Sturbridge fair begins: the 11 at Wolfpit in Suff. at Rippon, Waltham-Abby, Chesterfield in Darbishire, Richmond: the 21 at Marlborough, Bedford, Baldock, Edmundsbury, Holden in Holderness, Braintry, Brackly-Hatch, Malden, Mildnal: the 29 at S. Ives. Basingstoke, Winchendeping, Shelford in Bedfordsh. Bishopstratford, Boston, Stow in Lincolnsh. S. Albans, Canterbury, Leicester, Newbury, Westchester, Weymer for 7 days: Thursday after at Banbury.

October.

October.

The 2 day at Salisbury, the 6 at Havent in Hampsh. Ma[illegible]stone, Coolidge, Gayworth by Lyn. S. Faiths by Norwich, the 8 at Bishopstratford, Harborough, 9 Gainsborough, the 13 at Windsor, Colchester, Gravesend, Hit[illegible] Royston: the Tuesday before S. Luke at Potton: [illegible] Ely, Bishop Hatfield, Barnet, Banbury, Thirst, Burton [illegible] Trent, Wellinborough: the 21 at Saffron Walden, Coventry: the 23 at Bicklesworth, 28 at Newmarket, Hartford, Oxford, Diss, Wakefield, Stamford, Richdale in Lancashire.

November.

The 1 day at Chelmsford, 2 at Epping, Kingston [illegible] Thames, Padamhasson in Suffolk, 6 at Newportpond, Bedford, Hartford, 11 at Lodden in Norfolk, Lenton in Nottinghamshire, Hempton, Fockingham Bridgestock, Marlborough: the 17 at Spalding in Lincolnsh. Lincoln, Harlow, Hide, Northampton: the 19 at Horsham in Kent: the [illegible] S. Edmundsbury, Ingerston in Essex, Heath, the 23 at Sandwich, the 30 at Baldock, Bareford, Kolingborough, [illegible]denhead, Warrington, Rochester, Wakefield, York.

December.

The first day at Tutbury: the 5 at Pluckley: the [illegible] S. Neots, at Woodstock, Exeter, Spalding, Norwich in Cheshire, Seven-oak in Kent, Arundel, Grantham: the [illegible] at Sandhurst, the 8 at Northampton, Clitheral in Lancashire, Huntington, Leicester, at Malpas in Cheshire: the [illegible] at Canterbury, Salisbury.

THere is lately published *Thesaurus Linguæ Sanctæ Reseratus*, &c. being a Concordantial *Hebrew Lexicon*, or *Dictionary*; in which all the *Hebrew Lexicons* are succinctly comprehended, and the whole *Hebrew Concordance* of every Word of the *Hebrew* [illegible] grammatically resolved, &c. By *William Robertson* A. M. To be sold by *G. Sawbridge* at the Bible on *Ludgate-hill*, *London*.

FINIS.